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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,089	02/13/2004	Yasuaki Tsuchiya	Q79882	4112
23373	7590	12/08/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			MARCHESCHI, MICHAEL A	
			ART UNIT	PAPER NUMBER
			1755	

DATE MAILED: 12/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/777,089	Applicant(s) TSUCHIYA ET AL.	
	Examiner Michael A. Marcheschi	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2005 and 27 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 1-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/15/05</u> | 6) <input type="checkbox"/> Other: _____ |

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The new matter added to the independent claims is the limitation “the ammonium nitrate is a **major component for providing oxidative property of the slurry**” since the examiner can not find sufficient support for this limitation in the original specification.

Claims 1-9 are objected to because of the following informalities: The limitation “major component for providing oxidative property of the slurry” because this is not clearly defined. The term “of” in the above limitation should be changed to “to”~~o~~. Appropriate correction is required.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as obvious over Merchant et al.

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The reference teaches in column 3, line 28-column 4, line 20, a polishing composition having a pH of 3 comprising an abrasive (claimed amount defined), a **water soluble** oxidizer (amount defined), 1,2,4 triazole (amount defined) and water. Although a ferricyanide salt is also used for oxidizing, the amount of this component can be 0.05M (lower limit of range). Since the amount of ammonium nitrate can be about 2M (upper limit of range), it is the examiners position that one skilled in the art would have appreciated that the ammonium nitrate is a major component for providing an oxidative property. This is apparent because it appears that the amount of the ammonium nitrate broadly encompasses a major amount when calculated based on the total amount of oxidizers. In view of this claim 1 is met. Claims 2-7 are met by this reference for the same reasons set forth in the previous office action which are incorporated herein by reference.

New claims 8-9 are rejected under 35 U.S.C. 103(a) as being obvious over Merchant et al. These new claims are a combination of original claims 1-4, thus they are rejected for the same reasons defined above in the rejection of claims 1-4 over this reference.

The previous 102 rejection based on this rejection has been withdrawn in view of the amendments to the claims. **However, since the claims contain new matter, as defined above, the previous 102 rejection based on this reference can be reinstated once the new matter is canceled from the claims.**

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Claims 1-7 are rejected under 35 U.S.C. 103(a) as being obvious over Mandigo et al. in view of Merchant et al. for the same reasons set forth in the previous office action which are incorporated herein by reference.

New claims 8-9 are rejected under 35 U.S.C. 103(a) as being obvious over Mandigo in view of Merchant et al. These new claims are a combination of original claims 1-4, thus they are rejected for the same reasons defined above in the rejection of claims 1-4 over these references.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being obvious over Tsuchiya et al. (834) in view of Barr for the same reasons set forth in the previous office action which are incorporated herein by reference.

New claims 8-9 are rejected under 35 U.S.C. 103(a) as being obvious over Tsuchiya et al. in view of Barr. These new claims are a combination of original claims 1-4, thus they are rejected for the same reasons defined above in the rejection of claims 1-4 over these references.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being obvious over Schroeder et al. in view of Merchant et al. for the same reasons set forth in the previous office action which are incorporated herein by reference.

New claims 8-9 are rejected under 35 U.S.C. 103(a) as being obvious over Schroeder et al. in view of Merchant et al. These new claims are a combination of original claims 1-4, thus they are rejected for the same reasons defined above in the rejection of claims 1-4 over these references.

Applicant's arguments filed 9/6/05 and 9/27/05 have been fully considered but they are not persuasive.

Applicants argue that Merchant et al. does not disclose a composition where "the ammonium nitrate is a **major component for providing oxidative property of the slurry**". Although not literally defined and although a ferricyanide salt is used for oxidizing, the amount of this component can be 0.05M (lower limit of range). Since the amount of ammonium nitrate can be about 2M (upper limit of range), it is the examiners position that one skilled in the art would have appreciated that the ammonium nitrate is a major component for providing an oxidative property. This is apparent because it appears that the amount of the ammonium nitrate broadly encompasses a major amount when calculated based on the total amount of oxidizers. Applicants have not presented clear evidence to the contrary. Applicants also argue that ammonium nitrate is merely an additional component which is not essential. Although this may be implied, a reference can be used for all it realistically teaches and this reference clearly teaches that this component can be used. Applicants also argue the preferred triazole. This is not persuasive because a reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See *In re Van Marter*, 144 USPQ 421. Applicants appear to argue that no description **directly** showing the claimed mixture is defined. This argument appears to focusing on the examples and a reference is not limited to these. The reference clearly teaches a composition that can contain all of the claimed components. Applicants also argue the statement in column 4, lines 28-33 of the reference (polishing rate). The examiner acknowledges this, however, this statement appears to referring to the adjustment

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of the polishing rate and applicants have not presented any evidence as to why this statement would exclude a teaching of the claimed polishing composition. Finally, applicants argue unanticipated benefits, apparently from the teachings in table 1, however, the results defined therein are not commensurate with the scope of the claims.

Applicants argue that Mandigo et al. does not teach the claimed triazole and only BTA is used in the examples. The examiner acknowledges this but has defined specific reason as to why the use of 1,2,4 triazole is obvious and applicant have not persuasively argued the examiners reasoning. A mere statement without any specific reasons is not sufficient. In addition, a reference is not limited to the examples. The only argument is based on the unanticipated benefits. The examiner is unclear as to how the results define the table define unanticipated results because they are not commensurate in scope with the claims. Finally, applicants argue that the reference examples do not use ammonium nitrate. As defined above, a reference is not limited to the examples and since the reference clearly discloses this component it can be used.

Applicants apparently argue that Tsuchiya et al. does not teach the claimed oxidizer. The examiner acknowledges this but has defined specific reason as to why the use of ammonium nitrate is obvious and applicant have not persuasively argued the examiners reasoning. A mere statement without any specific reasons is not sufficient. The only argument is based on the unanticipated benefits. The examiner is unclear as to how the results define the table define unanticipated results because they are not commensurate in scope with the claims. Applicants refer to table 4 which, as applicants argue, shows that the Cu/Ta polishing rate is undesirable when hydrogen peroxide is used. Assuming this to be the case, it is clear that the concentration

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of hydrogen peroxide, and not the component itself, effects the above ratio (see comparatives examples 11-12), thus how can this establish unexpected results for the use of ammonium nitrate when it is apparent that the concentration of the components is a determining factor on the rate. Finally, applicants state that since BTA and 1,2,4 triazole are disclosed as being functionally equivalent, one skilled in the art can not easily select the claimed combination. The examiner is unclear as to this argument because a reference can be used for all it realistically teaches and a reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings. As defined in the above rejections, the claimed composition is obvious over the references and no clear evidence is provided to the contrary.

Applicants argue the rejection based on Schroeder et al. should be withdrawn in view of the certified copy of the priority document (priority filing date antecedes the publication date of the reference). The examiner acknowledges the dates, however, the reference can be applied as of its filing date and is not limited to the publication date.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

A reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings. *In re Opprecht* 12 USPQ 2d 1235, 1236 (CAFC 1989); *In re Bode* USPQ 12; *In re Lamberti* 192 USPQ 278; *In re Bozek* 163 USPQ 545, 549 (CCPA 1969); *In re Van Mater* 144 USPQ 421; *In re Jacoby* 135 USPQ 317; *In re LeGrice* 133 USPQ 365; *In re Preda* 159 USPQ 342 (CCPA 1968). In addition, "A reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See *In re Van Marter*, 144 USPQ 421.

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548. Evidence of unexpected results must be commensurate in scope with the subject matter claimed. *In re Linder* 173 USPQ 356.

The references cited on the 1449 have been reviewed by the examiner and are considered to be art of interest since they are cumulative to or less than the art relied upon in the above rejections.

Any foreign language documents submitted by applicant has been considered to the extent of the short explanation of significance, English abstract or English equivalent, if appropriate.

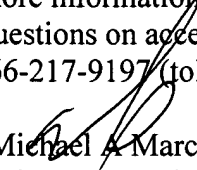
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11/05
MM


Michael A. Marcheschi
Primary Examiner
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